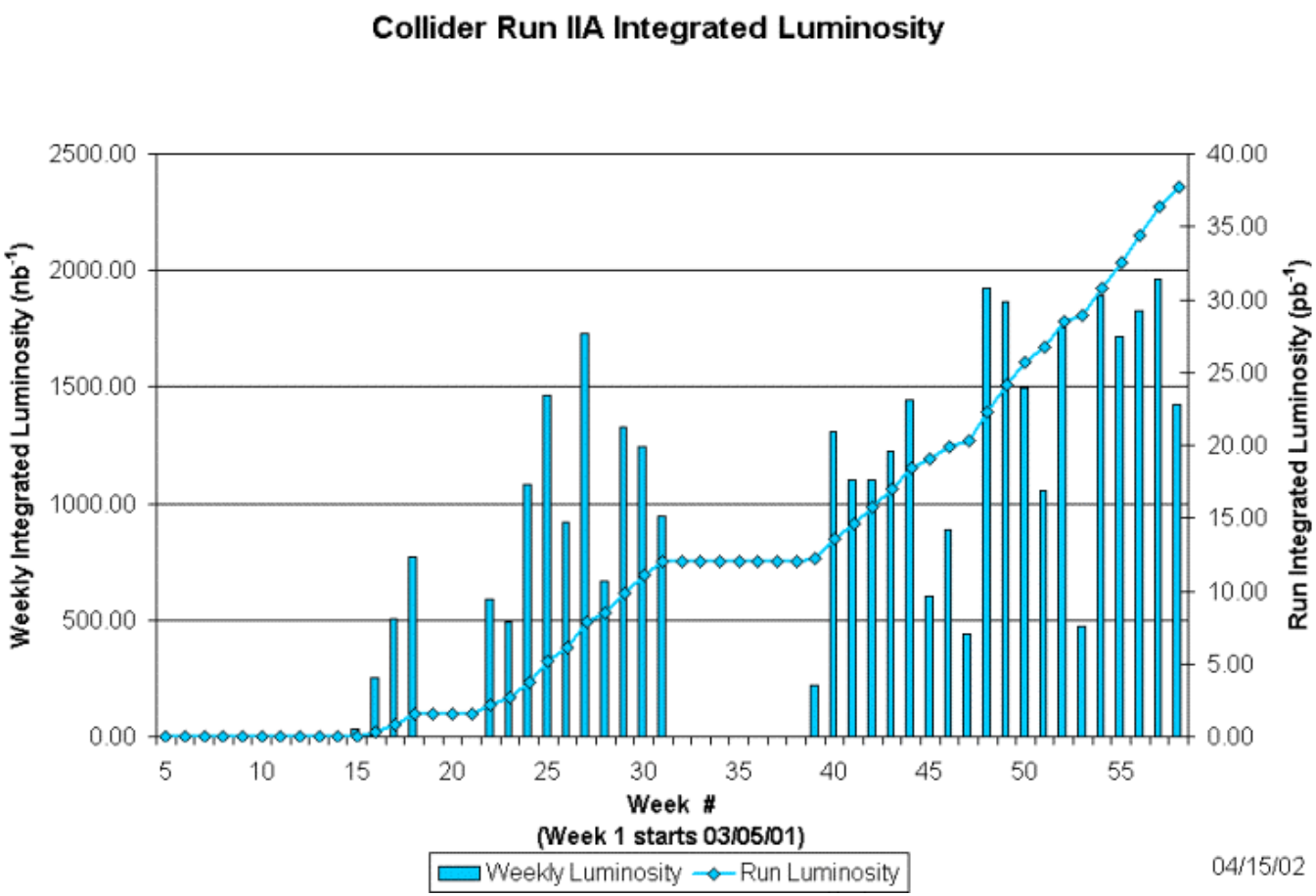
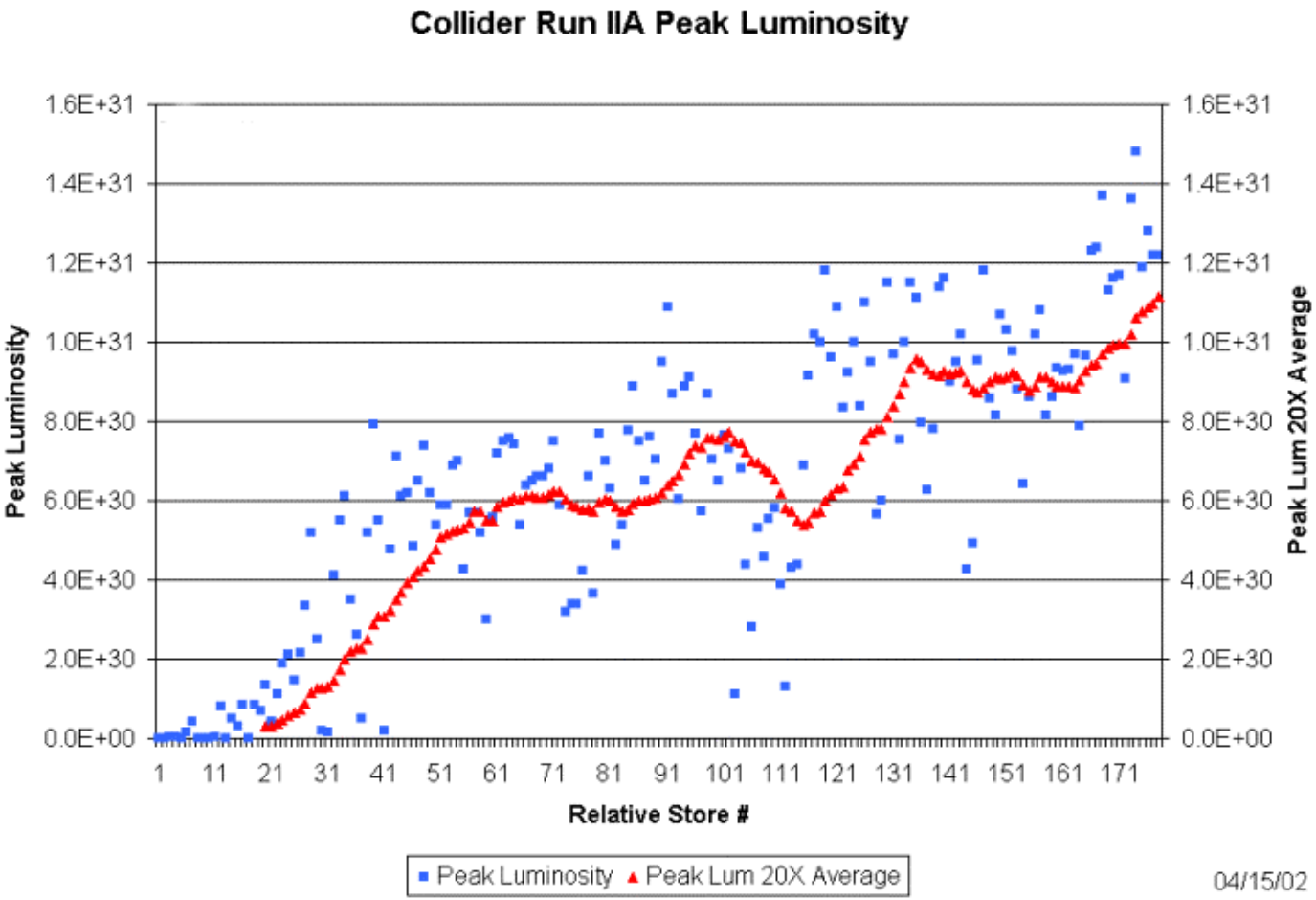
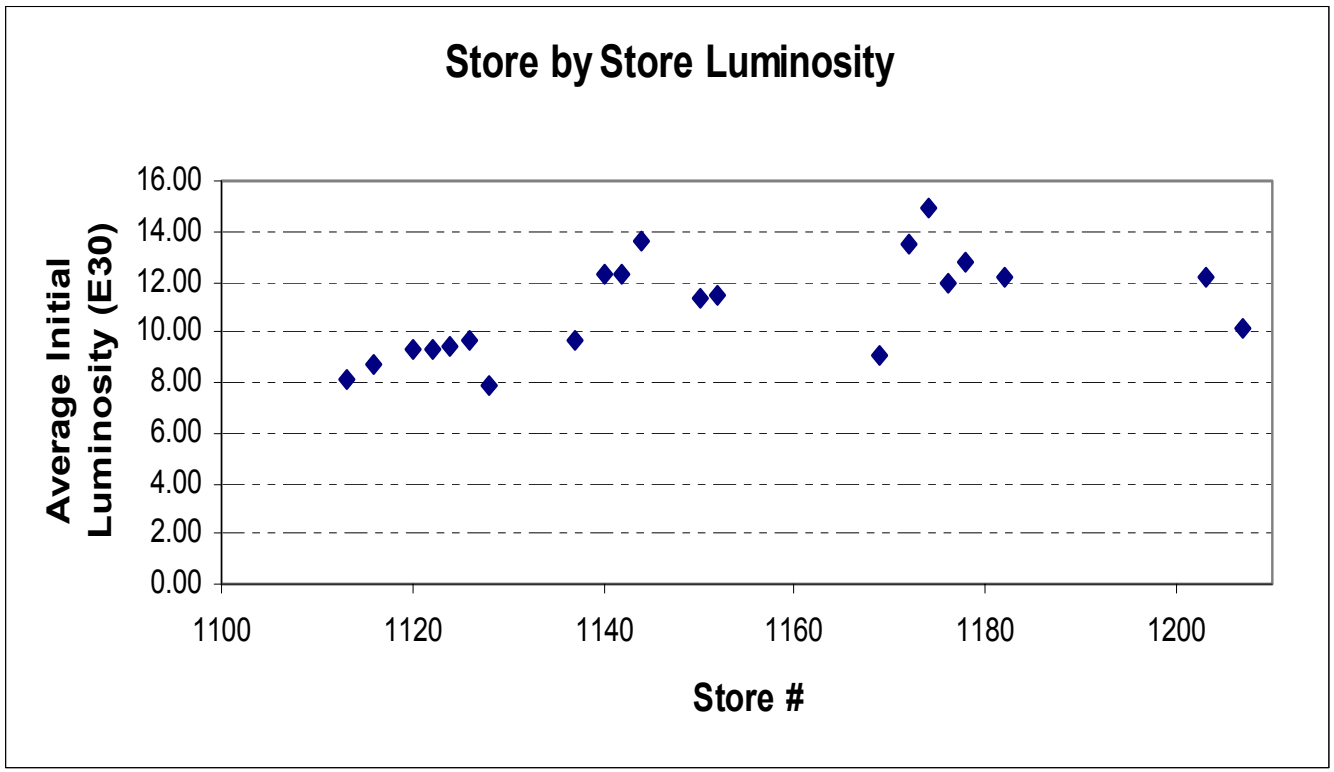
# Integrated Luminosity



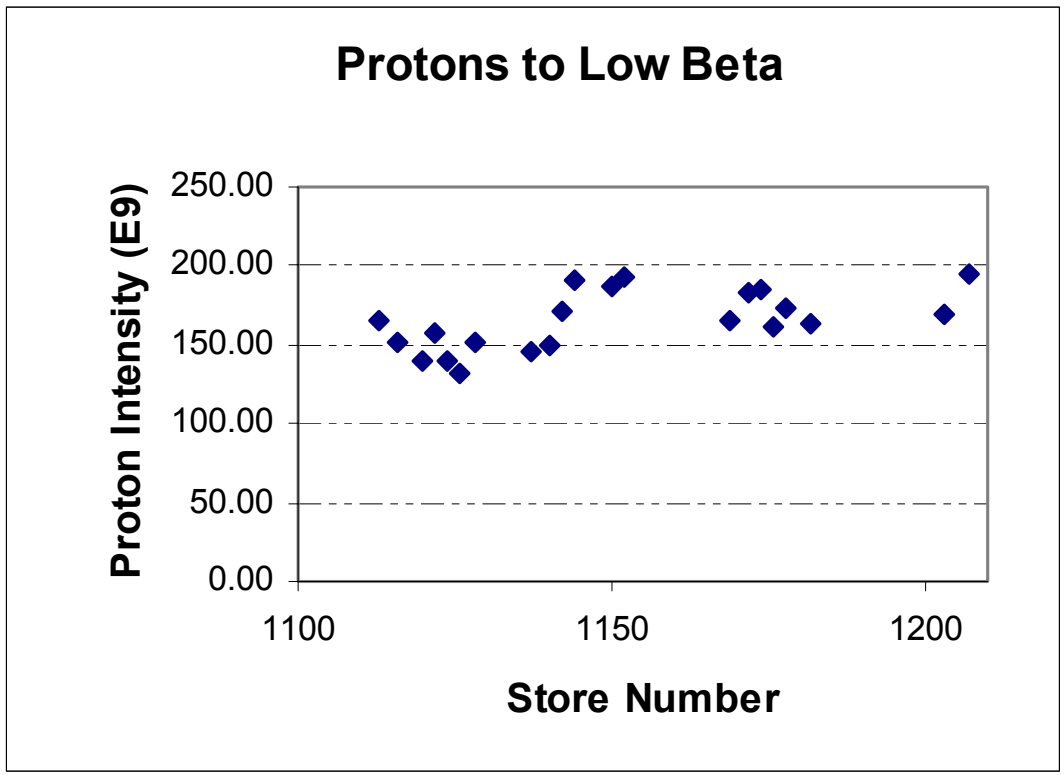
# Peak Luminosity



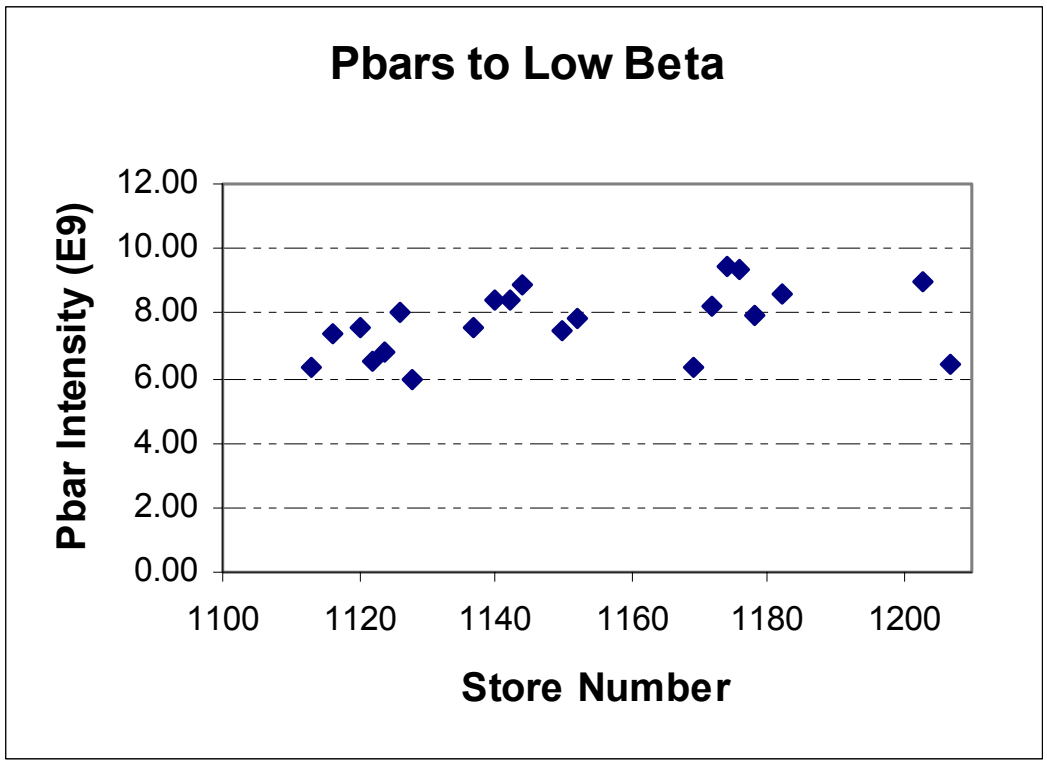
# Initial Luminosity



# Protons to Collision



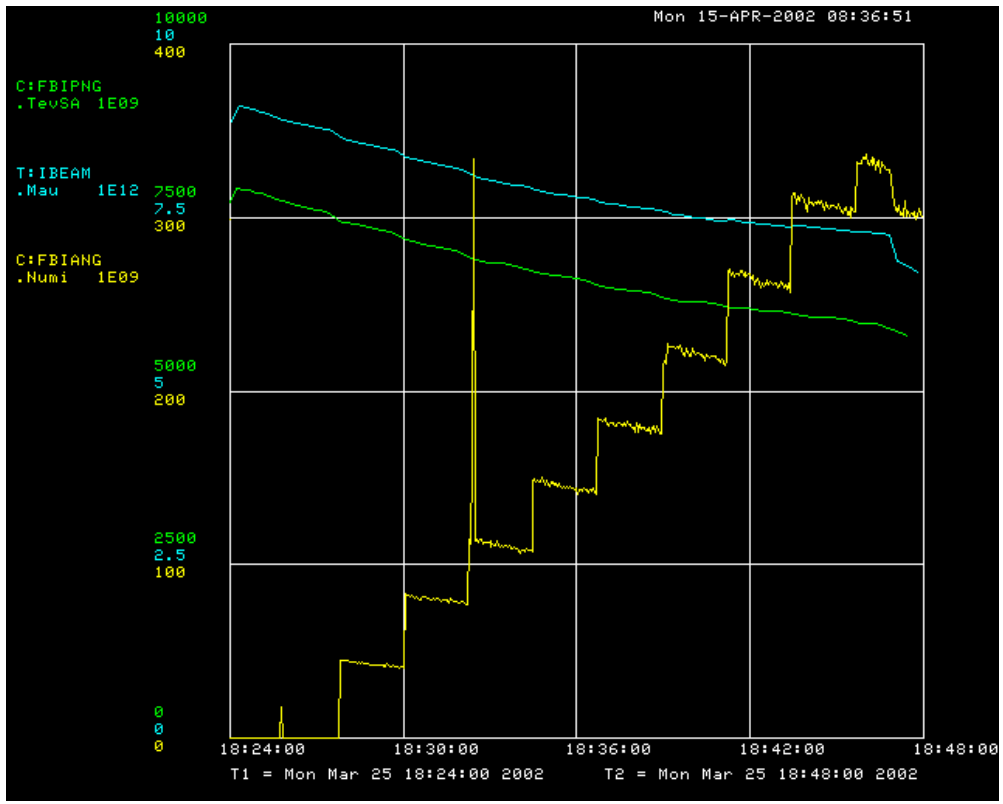
# Pbars to Collision



# *Tevatron Studies Summary*

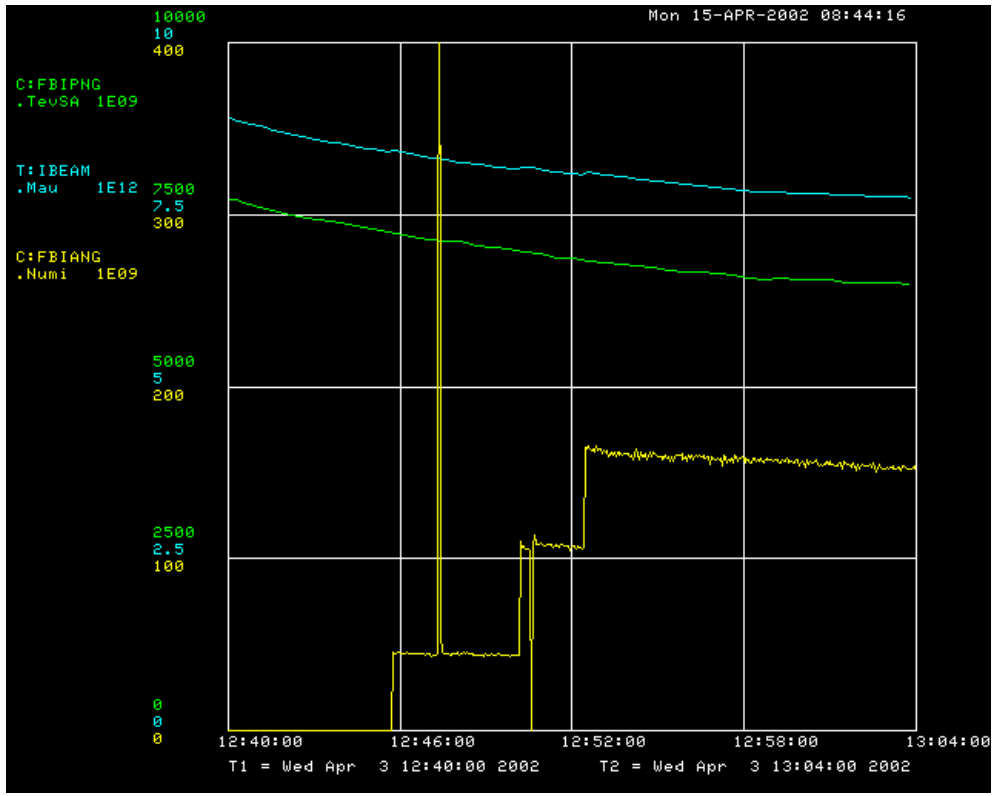
- 150 GeV Lifetime
- Parse the Squeeze (tune up)
- Collimators (no beam available)
- 36 X 12 to test new Helix

# Tevatron Studies Summary



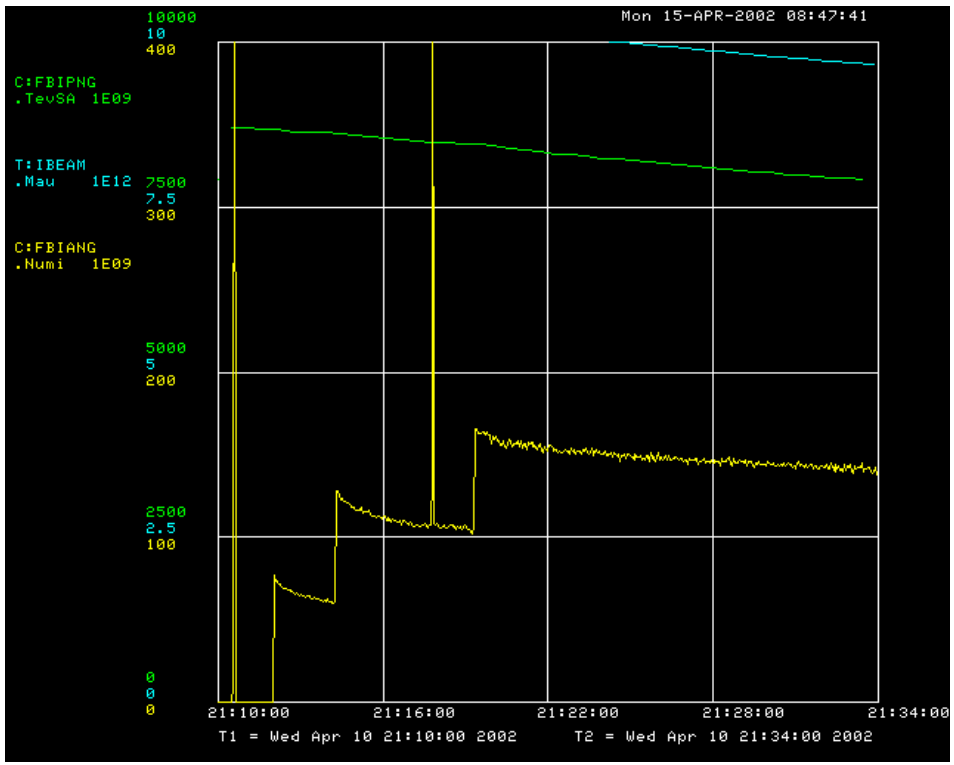

**Store #1128**

# Tevatron Studies Summary




**First 36 X 12**

# *Tevatron Studies Summary*

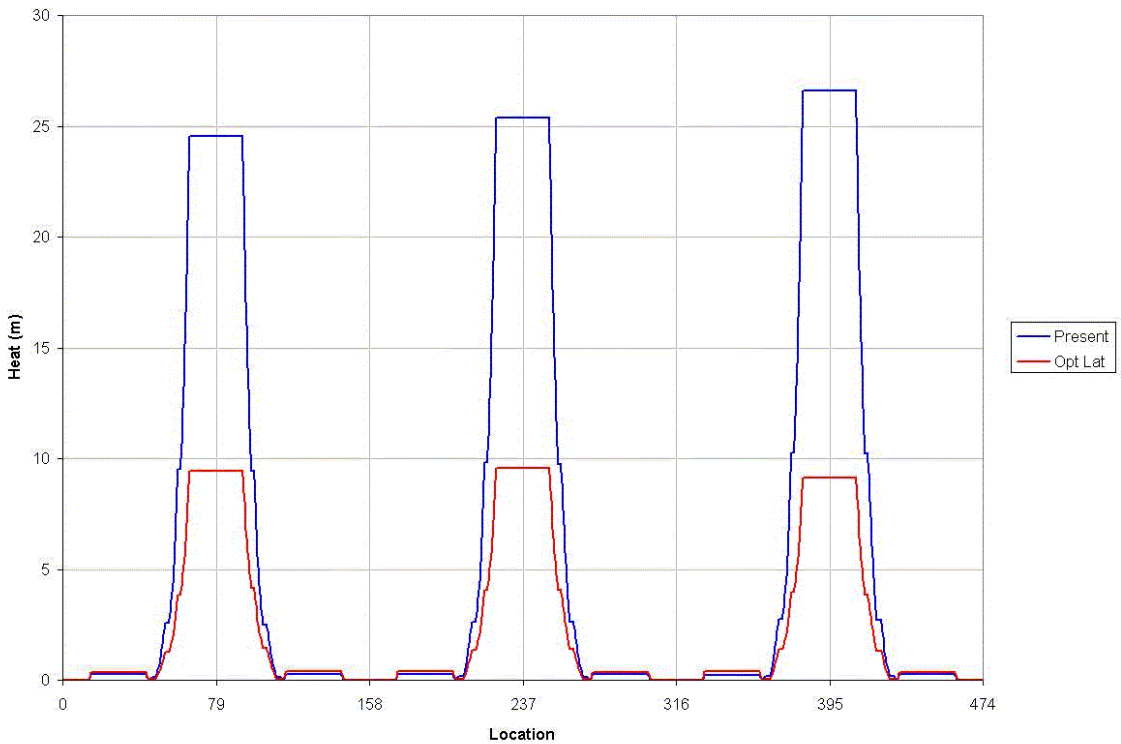



**Most recent 36 X 12**

# *Pbar Studies Summary*

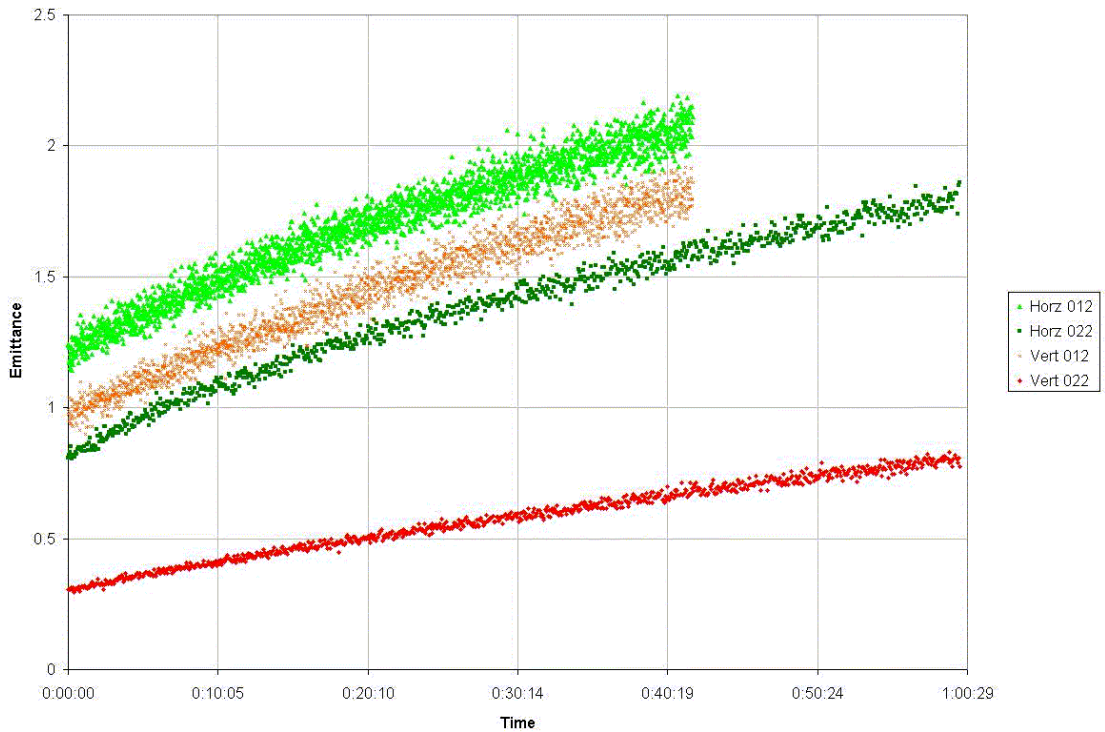
- New lattice IBS studies
  - Pbar stack moved to central orbit
  - change the lattice
  - compare heating rates
- Conclusions;
  - The 4-D and 6-D phase space products showed almost a factor of 3 lower emittance and growth rate
  - The initial conditions between the current lattice and the study lattice were not the same, another study needed

# *Pbar Studies Summary*



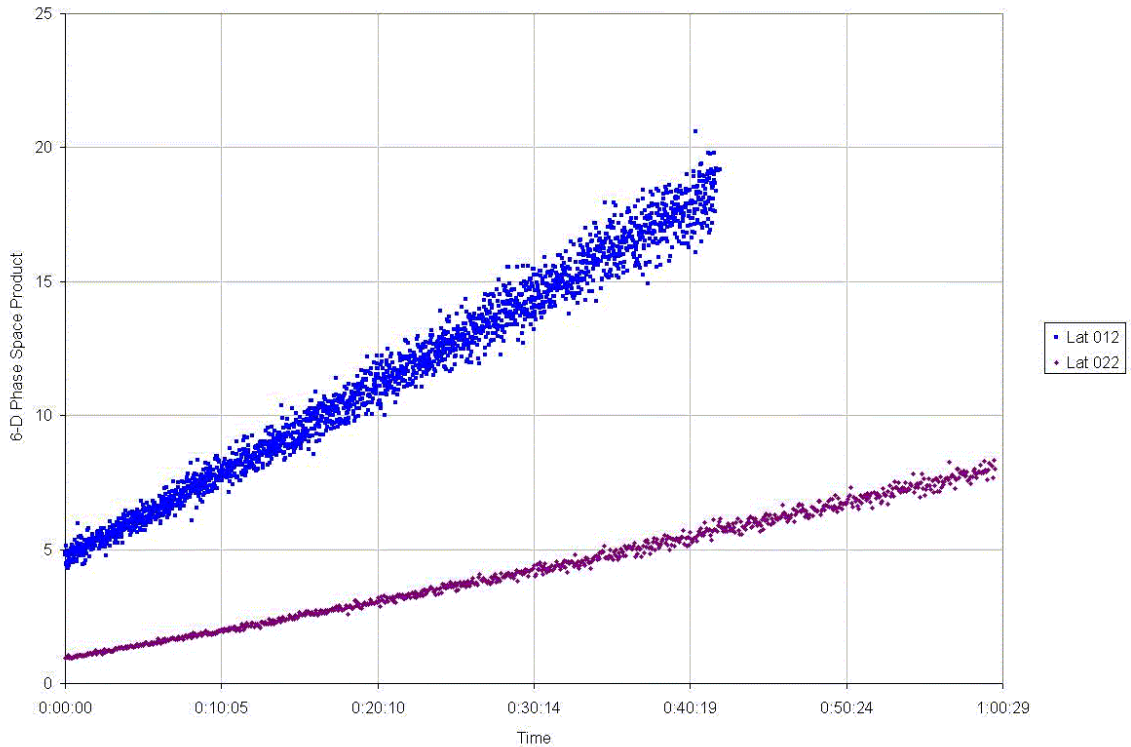

**Transverse Heating terms**

# *Pbar Studies Summary*




**Transverse Heating Rates**

# *Pbar Studies Summary*

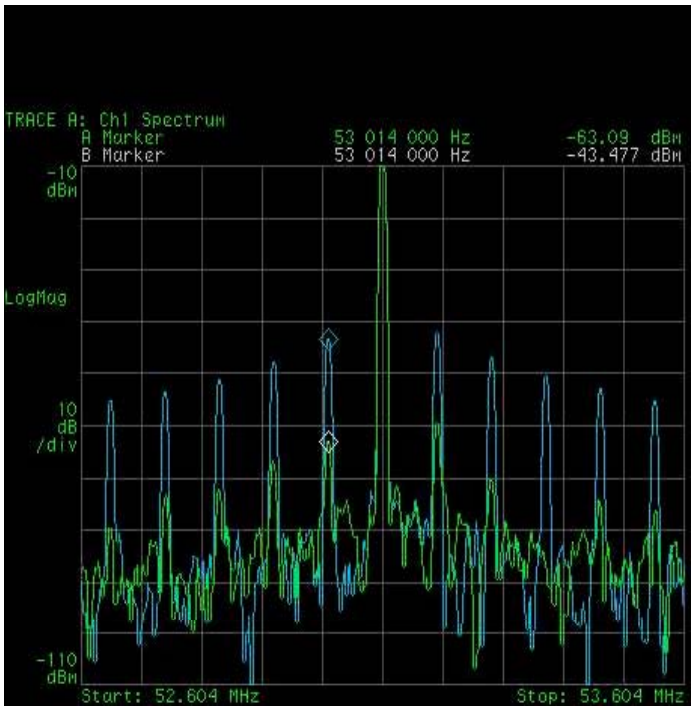



**6-D Phase Space Growth Rate**

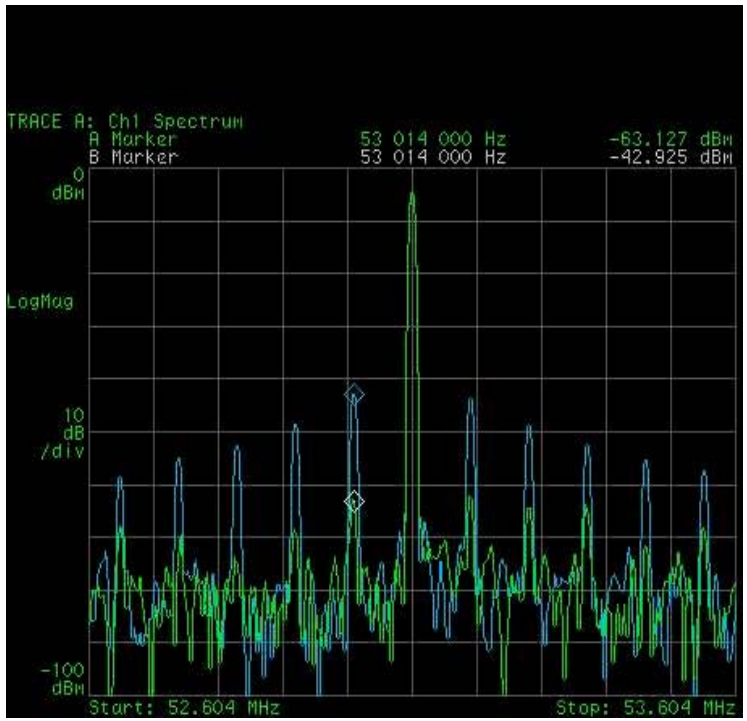
# *MI Studies Summary*

- Beam loading compensation
- Transverse emittance (growth) vs. Booster intensity

# MI Studies Summary

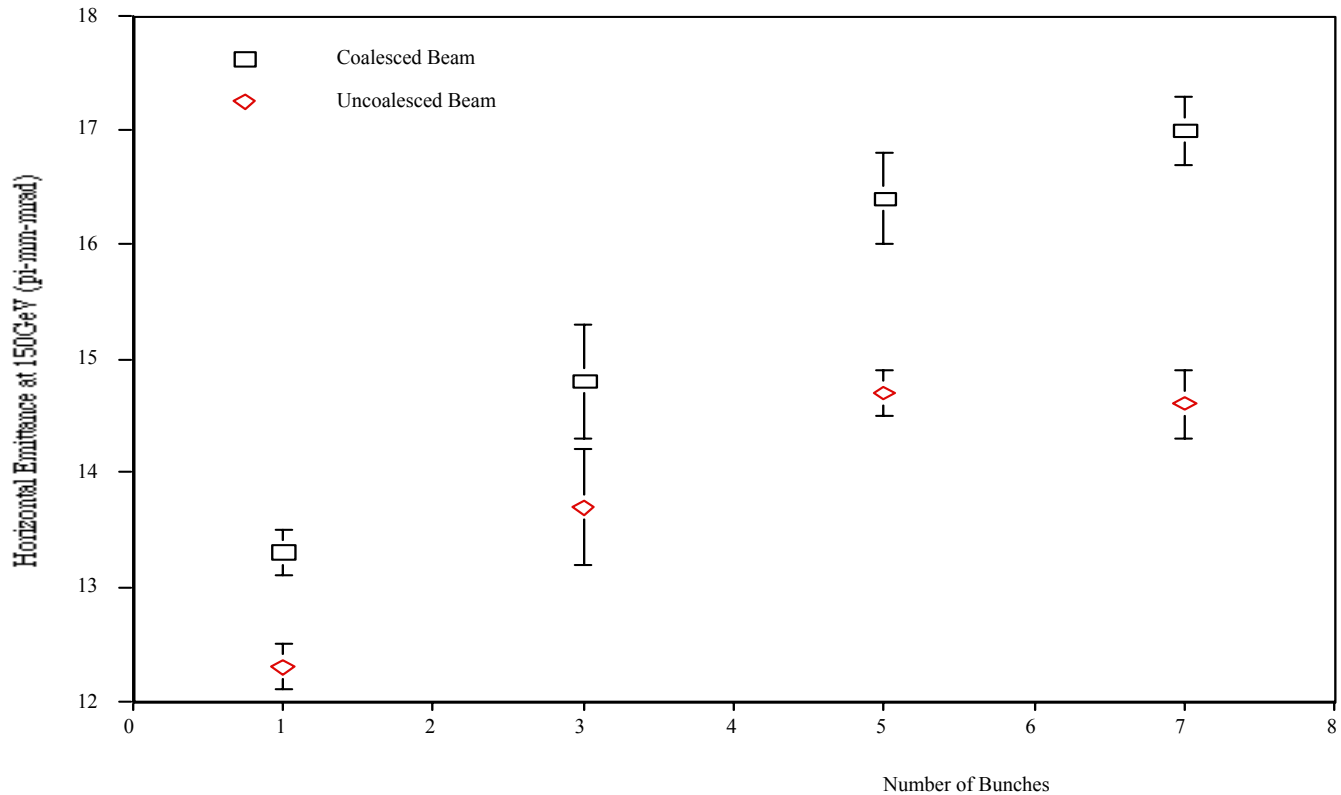



**Beam loading Compensation on Station 1**



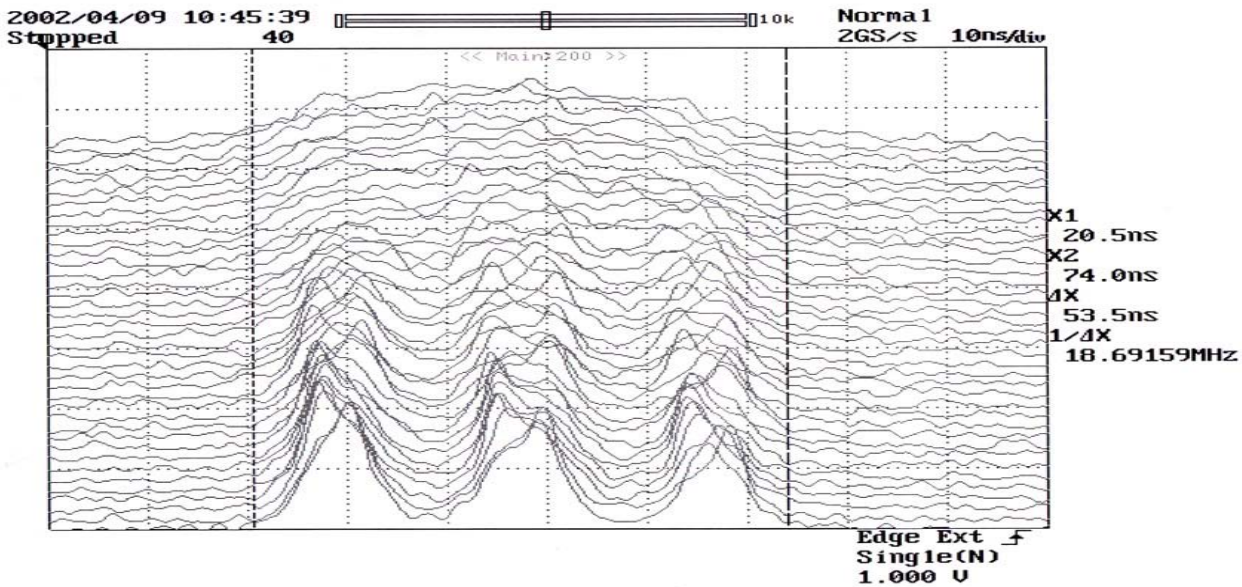

**Beam loading Compensation on Station 2**

# MI Studies Summary




**Horizontal Emittance at 150 GeV for 8 Booster Turns vs # of Bunches**

# *MI Studies Summary*




## 7.5 MHz Coalescing for RR Injection